

Book Review and Commentary: Digital Doctors¹

**by Marshall de Graffenreid Ruffin, Jr. MD, MPH, CPE,
FACPE, 220 pp. Tampa FL, Published by the America
College of Physician Executives 1999
ISBN 0-924674-63-6**

**Stanley M. Saiki Jr., MD
Chair, HMA Computer Committee**

Introduction

Well, it's been awhile since I sat down to do a book report. Come to think of it, the last time was in college. The stalling part seems about the same. Finding all manner of excuses to put off actually sitting down to do my "homework" brings back many fond memories. Procrastinating even as I actually start writing, I bask in the warm memories of my college years and comrades with whom I've long since lost contact. Life long loyalties are built in the shared experience of hanging out at the Dorm and Commons with all the other guys and gals trying to avoid homework. There is something different though, a curious feeling that somehow this is not as difficult as it used to be. I would like to think that it is now easier because of all the years of accumulated knowledge and wisdom. Perhaps I am getting smarter after all? With disappointment, I realize that it is now easier because, NOW I CAN TYPE!! Well, not really, but I can sit at a keyboard with a word processor and make the words struggle out. The last time I did a book report I used an IBM Selectric and a whole box of correction tape. At the time I thought the correction tape was the greatest invention in the history of inventions.

It seems to me this is very unfair. College was a lot of work, it would have been a lot easier if I had this computer. Come to think of it, the kids must have it pretty easy now. As I write, little red lines show up telling me to correct spelling and little green lines show up telling me to correct grammar and punctuation. Sometimes the misspelled words and capitalization errors are magically and instantly fixed without me doing anything. The Punctuation Police must have a branch office in my machine. The dictionary is only a right click away, the thesaurus only a quick trip to the menu bar and the Internet search engines just a few key strokes away. I don't even have to get up from my chair. Maybe I should really get serious and crank up "Dragon Dictate," my voice recognition program. On second thought, I don't feel up to wrestling the Dragon today. He's really not well trained.

The kids can see how powerful computers are and how technology makes life easier. They look on it as fun, and they can have power over adults! They can see the future of computing because they are not blinded as we are by techno-phobia, inflexibility and "pound foolish" frugality. Tragically, some adults see the need to evolve but feel they can't. Clearly there is great power in the new technologies, power to help us cope with the challenges of providing health care in our hostile environment. The haunting theme of Digital Doctors rings true; the world is changing, adapt or die.

Digital stereos, digital cameras, digital cell phones, digital scanners, digital x-ray, digital books, digital movies, the whole world is going digital. Digital Docs? The only digital I learned in medical school was the digital rectal exam. Marshall Ruffin's "Digital Doctor" is the physician who invests in personal and organizational "intellectual capital" to enable the use of digital computers and communications to do "the job" better.

Overview

For those named above, the "tragic" ones, those that see the need to internalize digital computing technology, but do not know how to start, this book is not the answer. If you appreciate the imperative need for each of us to master the skills of the digital age and the wide ranging, possibly apocalyptic implications of the power of digital information in health care; move on, go learn something useful. If you are a skeptic, don't think the digital age will affect you or your business in health care, feel your practice can survive because you possess the 3 A's (able, available, affable) or if you your billing on a peg board, you must read this book.

As a proponent for the digital revolution of health care I can sometimes get pretty "preachy" and hard to take. Ruffin's book, in this respect, is hard to take as well, even for me. He is frankly evangelistic about the power of computers and digital technology to revolutionize all areas of health care. The work is clearly written with consideration of a physicians' point of view; an amalgam of insight, crafted from his training in business (MBA), population and behavioral subjects (MPH) with the practical point of view of the physician executive. He displays ample bedside manner with the gentleness of a true physician when discussing the current morbid state of our profession. He is forthright in his prescription of bitter medicine and is supportive and compassionate in his discussion of our "illness."

Compassion notwithstanding, Ruffin's perspective as a "physician executive" is focus of Digital Doctors. Neither fish nor fowl, the physician executive walks the line between management and what will soon be "labor." Is the physician executive one of us, or have they crossed the line to management? As we continue to lose control of our profession, business and destiny, our physician executive could lead us to into the light or keep us docile in our servitude. Ruffin believes the physician executive will be our savior, showing us the way to regain control of medicine to assure quality health care, all the while staying under budget. This physician executive, a Digital Doctor, will have learned the skills of the digital age and will use the power of information to help physicians truly manage care rather than the current system of "managed cost".

Section I – Brave New World

This first of 4 sections in the book lays some of the ground work for understanding the effect of the digital age on medicine. Ruffin starts with a discussion of Informatics. He defines informatics as "an emerging science that studies the application of computing and communication technology to decision making for clinicians and managers." He follows with an interesting discussion to clarify the definition using good examples and interesting facts.

The Computerized Patient Record is introduced as the future of informatics and the ultimate goal for medical information collec-

tion. Large shared data repositories will allow "data warehousing" and "data mining," the latest buzzwords of the management wonks, require large amounts and varied types of accurate information to be useful. Currently "claims made" data, information gleaned from insurance payment requests, are the best source. These data, currently used to manage cost, is not nearly good enough to comprehensively manage care. The Computerized Patient Record or Electronic Medical Record is the tool best suited to gather information required for true managed care. Ruffin does a good job detailing why this is so and describes the advantages and barriers to the widespread use of the computerized patient record.

Ruffin believes that physicians and physician executives (he calls them providers) will regain control of clinical care and their economic futures. He feels the computerized record is a powerful tool to this end. He does present a balanced view when he quotes from Collen in the *Journal of the American Medical Informatics Association*: "It will be increasingly clear that whoever owns the computer-based medical patient records, with their wealth of data about clinical processes and outcomes, controls patient care. Large insurer-owned, for-profit MCP's (managed care plans) will continue to expand their control over their contract physicians' clinical practice by exploiting clinical data."¹ Ruffin exposes the double-edged sword of data collection.

Section II – Expanding Horizons

Ruffin turns next to a fascinating and instructive discussion of the evolution of personal computers and the Internet. He illustrates the inexorable, rapid pace at which technology has developed and the amazing and progressive acceleration of this pace. The interesting and informative examples enlighten the reader.

Compelling reasons are presented to suggest that the Internet through the World Wide Web will play a central role in medical telecommunication in the future. WWW technology will be the medium for medical information transfer and the computerized patient record. Conceptually this is easy to accept. It is a little different story when I sit in front of the monitor waiting for pages to download or can't log on to my mail server. Will I trust this in a mission critical application? With more people coming on line and traffic growing every minute? I even got a cable modem that is so bad I've given up and have gone back to the phone dial-up. They are working on Internet II and III, perhaps I will believe it then.

There is an informative section on informatics and health care WWW sites. Some practical value here and an interesting suggestion as to how "push" technology could be used to individualize web provided information to each patient. The ability to send information tailored and relevant to the individual patient would be quite useful in the preventative medicine environment.

Section III – New Structures for Health Care Delivery

Organized Care: the next step? Ruffin predicts that large organized regional healthcare networks that share financial risk while providing for the health care needs of a community is the shape of healthcare organizations of the future. He expects that all healthcare providers will assemble in these large regional integrated systems. When this happens units can share data and move from the current managed cost called Managed Care to "Organized Care".

Certainly in the perfect world this would be the logical thing to do.

Of course, in college we all thought communism was a logical way to do things as well. Ruffin senses this skepticism and concedes: "The payers will always have a role in organizing and managing care because most physicians cannot agree to share capital and management to create organized care systems. I hope that the profession of medicine recognizes its opportunity to lead the management of the health of populations the way in which it leads the treatment of disease in individuals."

The conceptualization of the Organized Care Systems by Ruffin is complete and elegant. He conscientiously describes the importance of informatics in the transition from Managed Care to Organized Care.

Section IV – Implications for Providers and Provider Organizations

Changes in the healthcare environment in the past 10–15 years have been staggering with more change on the way. Powerful indeed is the motive force of this change. The almighty dollar, in this capitalist paradise, an irresistible force, a force far from spent. Ruffin does an excellent job of reminding us of the forces and agendas involved. He goes further to discuss how digital technology and the organized care systems can help us adapt to this juggernaut of change.

Physician Profiling is discussed in this section. The point is well made that profiling will and does occur and that it has been supported as a process by the courts. Economic credentialing is a distasteful fact of life. Ruffin recommends that physicians accept this as reality (after all the lawyers and bean counters have) and learn to adapt to the changing environment. Since the process is inevitable he recommends that physicians try to get profiled. "I suggest that physicians try to get profiled and insist that the organizations in which they work or the systems of care in which they see patients invest in staff and information systems to profile them." "Sharing the data with clinicians in an educational way is the key to successful cultural change." "Physicians are learners."

Conclusion

Though distracting and frustrating, we ignore the "business" of medicine at our own peril. We are in an unstable dangerous environment in which the way we do business affects our ability to care for patients as well as our livelihoods. Far reaching changes will have to be dealt with both on an individual and on a group basis. Computing and telecommunications innovations are enabling technologies that could significantly affect our ability to survive and prosper. Both the technology aspects and the managed care/managed cost issues are well discussed in this book.

Reference

1. Collen, M. "A Vision of Health Care and Informatics in 2008." *Journal of the American Medical Informatics Association* 6(1):1-5 Jan.-Feb. 1999